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NOTES ON GEOGRAPHICAL EDUCATION.

BY

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THE PRESENT POSITION OF PHYSIOGRAPHY.—The advance of physiography as a college and university subject has been very rapid during the last few years. Not long ago the subject was included in but four or five of the leading universities of the country, and even in some of these no adequate recognition was given to the subject. Now physiography is considered necessary not only at the larger universities but also at many of the smaller colleges, and the recognition given it is constantly being increased, and college authorities are furnishing laboratory equipment rapidly and gladly. Such an advance is proof positive that the subject has established a permanent place for itself in the college and university curricula, not only because of the value of its content as a pure science subject, but also because it has proved to be a disciplinary subject of equal value with the other earth sciences, and because a knowledge of physiography has been found to be of basal importance for an understanding of other fields of thought.

For several years one of the leading university teachers of sociology has required his students to take a half-year preliminary course in physiography as a basis for sociological work, and, conversely, one of the most satisfactory brief treatises of the relation of man to his physical environment is found in an introductory chapter in a volume devoted to the elements of sociology. At another university a course in physiography in one department, and a course on the influence of the environment in another department, have gone hand in hand.

Within the last year or two the leading students and workers in botany and zoology, who are making a study of animals and plants as related to their environment, have seen the value of a preliminary training in physiography, and now are urging the necessity of such training. Indeed, they are going farther, and are borrowing the ideas, and to some extent the terminology, of physiography, and are applying them in their own fields. They find that there is a life-cycle of plants in any particular region similar to and dependent on the life-cycle of land-forms. Thus the several sciences are co-operating in a way that would never have been suggested a decade ago, when university physiography was young. A beautiful illustration of the relationship between the two fields was shown recently when the physiographer and the zoologist independently came to the same conclusion as to the former drainage of the Tennessee Valley, by way of the Coosa, to the Gulf of Mexico.

In the study of history, as, for instance, the history of the United States, a knowledge of physiography is especially of value, as all the better teachers of history will emphasize; but the subject has not yet received its due recognition from the historians as a body, probably because the historian has been so long in the habit of doing without it.

The workers in geology, to which subject physiography is so closely related, feel a strong need for better training in physiography. Theoretically, it is natural to expect geology to be closely allied to physiography. Recent advancements in the field have shown, however, that physiography has to be employed in certain of the great economic geological problems of the day. Thus, physiography is now proving its practical as well as its theoretical and cultural value, and it will constantly grow in importance from this standpoint.

A knowledge of the origin and meaning of land-forms would be of especial value to civil engineers; but in this field, again, the subject has not found due recognition. Any topographical surveyor, however, would be better able to bring out the meaning of the topography, and give expression to his map, if he knew the story and problems of the land area he was called upon to map. This has been adequately proved by the experience of the United States Geological Survey, and it can be only a question of time when all the larger and better schools of civil engineering will consider physiography a requisite part of their course of training.

The future of the subject, therefore, seems most encouraging, and the progress made thus far is greater than could have been anticipated. Within the last year physiography has been introduced at the University of Pennsylvania, and has been greatly strengthened at Yale University by the establishment of an associate professorship in the subject. Geography, from the school to the university, is closely related, and any advances at the top must react downwards, just as improved elementary school work must spread upwards and strengthen the cause of physiography in the university. The leaven is now working in both directions, and the outlook for a great advance in all phases of geography teaching in the next decade is stronger than it was at the beginning of the last decade.

THE IMPROVEMENT OF GEOGRAPHY TEACHING IN ELEMENTARY SCHOOLS.—In the last number of the BULLETIN mention was made of the important "Report on Geography of the New England School Superintendents." This report has already accomplished much good within and without New England. In several places the topic of geography teaching in elementary schools is now being warmly discussed, and carefully studied by teachers who are engaged in elementary school work.

The most serious of these conferences that have been planned is perhaps that under the auspices of the New England Conference of Educational Workers. This conference is an association of active teachers in and about Boston, who meet in groups monthly during the school year to discuss pressing problems. The conference has a Committee on General Education, which plans, each year, for the discussion of such educational problems as are of general interest. During the present calendar year geography is to receive special attention, the meetings being held on the fourth Saturday of each month during the school year.

The geography conferences ought to be notable, and certainly the results should be widely disseminated, for each conference is to be led by an author-expert. The committee has been fortunate in securing the services of the best-known authors, whose books are most widely used, perhaps, and hence the meetings ought to be most helpful and important.

Mr. Alexis E. Frye, author of the first of the series of geographies from a modern point of view, spoke in January; Dr. H. S. Tarbell, Superintendent of Schools at Providence, R. I., author of the series of geographies bearing his name, and one of the committee who drew up the report on geography already noted, will speak in February and May; Dr. J. W. Redway, the well-known geographer and joint author of the Natural Series of Geographies, will speak in March and April; and Professor F. M. McMurry, of Teachers College, Columbia University, and joint author of the latest series of geographies—the Tarr & McMurry Series—will probably speak in September and October.

Such conferences are most encouraging, and ought to be very successful in helping to improve geography teaching in elementary schools. It is generally conceded now that geography is the poorest taught of any of the elementary school subjects, and yet it must continually and rapidly improve. The situation in the schools is not discouraging, but encouraging, for the number of teachers who are taking up a special and serious study of geography, either during the year through series of lectures given at colleges or normal schools, or during the summer at the leading summer schools, is constantly increasing.

BIBLIOGRAPHIES DEVOTED TO GEOGRAPHY TEACHING IN ELEMENTARY SCHOOLS.—A good bibliography devoted to geographic education is a valuable help for all dealing with any of the special or general problems of geography teaching. Our recent better text-books contain excellent lists of references of value to teachers; but the books and periodicals noted are not always easily accessible, as but few libraries can keep such special departments up to date.

The recent Library Bulletin (No. 2), published by Columbia University, and devoted to a list of books on education in the libraries of Columbia University, contains a very good and suggestive, but not complete, bibliography of elementary geography teaching. Seventy-six titles are listed, by English, French, and German authors, most of them of comparatively recent date. Teachers and authors interested in the growth of the so-called "new" method of geography teaching should consult this list.

GEOGRAPHICAL EXHIBITIONS.—The value of a geographical exhibition in arousing an interest in geography is very great, and perhaps not wholly appreciated. We have not yet escaped from a state where ignorance still exists in reference to what geography is. Almost every day one hears some person who is seemingly up to date expressing surprise that there is anything in geography beyond information about products, capes, towns, latitude, and mountain ranges. The geography of a generation ago still persists in the minds of many, and the modern view of geography finds scant support from many of those who would be expected to encourage it most.

An exhibition deals with material things, and thus can do more than a prospectus or a treatise to show people what is of value in geography as it is now understood and taught, not only in the leading universities but also in the better elementary schools.

A little over ten years ago the Brooklyn Institute of Arts and Sciences arranged a geographical exhibition of a very inclusive nature, which did a great amount of good at the time, and which has continued to be of service to the cause to the present day. This exhibition was especially complete in maps, which are still preserved in the Museum for use by all those who desire to consult them, and set an example and standard that have been of great service.

Three years ago a similar but smaller exhibition was arranged at the Science Museum, Springfield, Mass., and attracted a good deal of attention. This exhibition was particularly good in the lines of models and Government maps, and showed what could be arranged at little expense in these lines.

Model and map makers, Government and State bureaux, publishers and others who are producing geographical apparatus will willingly co-operate, as a rule, in giving such an exhibition, and thus the planning and arranging of an exhibition is a very easy matter. There is every reason, therefore, why a zealous worker in geography should not hesitate to arrange for such an exhibition. It is usually destined to be a success, and is more capable of arousing public interest than almost any other form of geographic work.

The latest successful exhibition was held on December 27–30, 1901, at Des Moines, Iowa, in association with the meeting of the Iowa State Teachers' Association. The exhibition was planned by Professor W. H. Norton, of Cornell College, Mt. Vernon, Iowa, and Mr. A. W. Brett, of the West Des Moines High School.

Especial attention was given to models, which included several of the best from Howell and other publishers. The laboratory of Cornell College gave an exhibition of methods of making models as it has been worked out in the laboratory. One model represented Crater Lake, built of contour planes cut out of cardboard. A model of the Wisconsin drumlin area was made in putty, the vertical height being obtained by steel pegs driven to a given height along basal contour lines. Others of Great Britain, and showing ideal glacial and river conditions, were also shown. The sections devoted to maps, photographs, and lantern-slides were especially full.

The exhibition as a whole was one of the most successful features of the Association meeting, and aroused a great deal of interest. The first of its kind in the State, it was natural to expect that the good effects would be very marked. Word has come to us from several sources as to the value of the exhibition in giving an inspiration to the cause of geography teaching. Professor Norton and Mr. Brett deserve great credit for their enterprise and success, and it is to be hoped that their example may be followed at many other centres.

LABORATORY EQUIPMENT FOR PHYSIOGRAPHY.—Several articles have been published during the last few years giving suggestions as to the equipment of a school geographical laboratory*; but as yet no particular combination of apparatus has been evolved which might be called a standard equipment to accompany any of the leading text-books in the subject. At present any one equipping a school laboratory consults the leading articles and references and then tries to come in touch with the dealers who have those articles that seem most desirable. The choice of what is best is often a difficult task, as large option is allowed in the lists given. Furthermore, the securing of the materials causes much delay and annoyance, because dealers' addresses are not correctly given, or because the prices mentioned are not the net prices. Thus, for several reasons, teachers at a distance from dealers find the equipping of a laboratory a difficult and time-consuming task.

The time seems to be ripe for some dealer to make a specialty—not of maps or models alone, but of the necessary equipment for a geographical laboratory, not including Government maps. School laboratories are increasing in number constantly, and already there is a demand for just such a geographical dealer as has been noted. Only recently one of the large dealers in maps in New York received a request to furnish specifications for the equipping of a geographical laboratory, and could not do so. Not only was the firm not ready to offer advice as to what the equipment should be, but they further did not know what schools could offer the best suggestions.

Such a condition is deplorable for several reasons. There being no accepted equipment, schools are liable to waste money. A few large, expensive, showy pieces of apparatus, of use, perhaps, but a few times a year, are very seductive, and often are bought instead of a greater supply of less showy articles that are much more generally serviceable. The market is full of good and bad apparatus; and now that the field of secondary school physiography is so clearly mapped out, it would seem to be an appropriate time to make a better stand in the matter of laboratory equipment.

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* Davis, The Equipment of a Geographical Laboratory, Jour. Sch. Geog., Vol. II, p. 170, May, 1898; Ward, The Equipment of a Meteorological Laboratory, Jour. Sch. Geog., Vol. III, p. 241, September, 1899; Tarr, The Teacher's Outfit in Physical Geography, School Review, pp. 161 and 193, March and April, 1896; Dryer, Lessons in Physical Geography, Am. Book Co., 1901.